KENWOOD

DVD NAVIGATION SYSTEM

KNA-DV3200

INSTRUCTION MANUAL

KENWOOD CORPORATION

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English

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Before Use

■ Warning Messages

For safe usage please observe the following !!!

READ THIS MANUAL FIRST

Read this manual carefully before starting to operate the Kenwood Car Navigation System and follow the manual's instructions. Kenwood are not liable for problems or accidents resulting from failure to observe the instructions in this manual.

OBSERVE LOCAL TRAFFIC SIGNS AND REGULATIONS

Always observe the local traffic signs and regulations whilst driving and check them against the system's instructions. Due to frequent changes in local signs and regulations, the traffic sign and regulation data on the Map DVD-ROM may be outdated. Furthermore the Map DVD-ROM cannot reckon with certain conditions such as traffic density at certain times of the day, (temporary) road closures due to construction work, weather conditions or special events taking place. **Therefore always obey the local traffic signs and regulations rather than the system's instructions. Failure to do so may place you in illegal, unsafe or dangerous situations.**

DRIVE SAFELY

Before following the system's guidance instructions, such as changes in direction, always check first whether it is safe to do so given the current traffic conditions. Then follow the given instructions, but make sure you do so in a safe manner.

VOLUME LEVEL

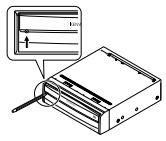
Keep the system's volume at a low enough level to be able to hear outside noises whilst driving. If you can no longer hear outside noises, you may be unable to react adequately to the traffic situation. This may cause accidents.

FOREIGN OBJECTS

Keep fingers and foreign objects out of the disc-loading slot, so as not to cause accidents. In the event of there being foreign objects inside the unit, or smoke or noxious odours coming out, stop operation immediately and contact the closest Kenwood dealer.

STOP OPERATION IN THE EVENT OF PROBLEMS

In event of problems such as a lack of sound or video occurring, stop operation and push the reset button. Should the problems persist, stop operation of the system and contact the closest Kenwood dealer.
When upgrading the program, insert the version-up disc and press the reset button.



NEVER DISASSEMBLE OR ALTER

Never try to disassemble or alter the navigation equipment. Any attempt to do so may cause accidents, fire or electric shock.

REPLACING FUSES

When replacing fuses always use the same rated ampere. Failure to do so may cause fire.

SMALL ARTICLES

Keep small articles (like screws or batteries) out of the reach of children. If any such object is accidentally swallowed, consult a doctor immediately.

Information in this document is subject to change without notice.

■ Before Use

Start the car engine before use

This mobile navigation system can be used when the ignition key is turned to ON or ACC. However, to preserve the battery, it should be used with the engine running whenever possible. Using the navigation system for a long time with the engine switched off can cause the battery to run down.

Time before current position is displayed

The mobile navigation system will not display the correct current position of the vehicle the first time it is used after purchase, or if the battery has been removed for a long time. GPS positioning signals will soon be received, however, and the correct position will be displayed.

Reading programmes after the battery has been turned off

The navigation programmes will be deleted if the battery is removed for repairs, etc. If this happens, set the map disc provided into the mobile navigation system and switch on the engine. The mobile navigation system will automatically load the programmes and start operating normally again.

When driving on rough roads

The mobile navigation system might not operate properly or be able to read map data from the disc if there is severe vibration caused by driving on rough roads.

Handling the GPS antenna

- Do not paint the antenna. This will impair or disable signal reception.
- Remove any object or accumulated snow, etc., from the top of the antenna. It will reduce reception strength.
- Do not pull the cord when removing the antenna or adjusting its position. This can cause a short or snap the wires.

Operating whilst driving

The GPS voice navigation system displays the switches disabled during driving in fainter colours. These switches stop functioning and no message is displayed.

Precautions for handling precision machines

Be careful of the surrounding temperature. Using the mobile navigation system at extremely high or low temperatures can lead to malfunction or damage.
Also note that the unit can be damaged by strong vibration or by metal objects or water getting inside.

Condensation

Condensation can form on the lens inside the main unit just after the car heater is switched on in cold weather, for example, leading to malfunction. The main unit will start working normally again if it is just left alone for about one hour for this condensation to go away. If normal operation is not restored after several hours, return the main unit to the store where you purchased the mobile navigation system.

Map disc

Always replace the map disc with another compatible map disc. Never insert an incompatible disc. It can damage the main unit.

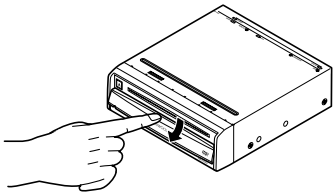
■ Precautions when Handling Map Discs

- You should handle discs carefully, as excessive warping or scratches on the disc surface or label can lead to reading errors.
- Store discs away from direct sunlight. The disc might warp and become unusable.
- Lightly wipe the disc with a soft cloth in a straight line from the centre of the disc towards the outer edge.
- If you touch the data surface of a disc (the surface without a label printed on it) it might get dirty and lead to a malfunction. Always hold a disc either by its centre hole and an edge or by two edges.
- Do not write on, or stick paper or seals onto, the surface of a disc.
- Never clean discs with benzene, thinners, record spray, anti-static spray or chemical swabs.
- Map discs rotate at high speed inside the main unit. Do not use a cracked or badly warped disc, therefore, because it might damage the main unit.

Replacing Map Discs

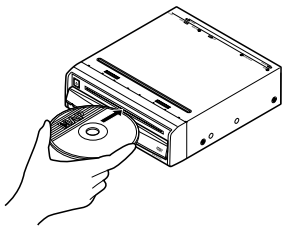
Inserting the Map Disc

1



Slide the front cover downward to open the disc-insertion slot.

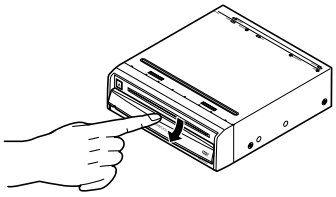
2



Insert the map disc (facing upward) and close the front cover.

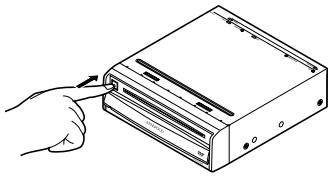
Removing the Map Disc

1



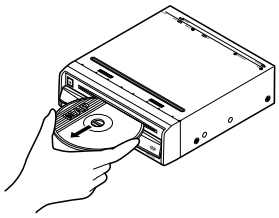
Slide the front cover downward to open the disc-insertion slot.

2



Press the eject button.

3

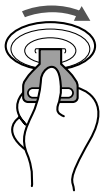


Remove the map disc and close the front cover.

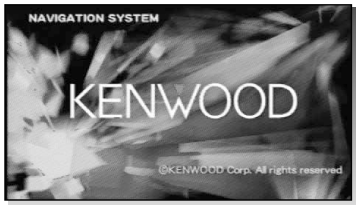
Starting Up Navigation

Start up navigation and display the map of the area around your vehicle.

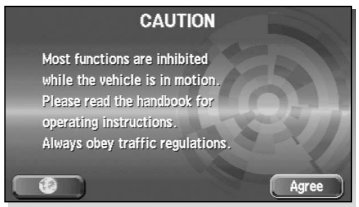
1



Turn on the car engine.
The Opening screen appears, followed by the CAUTION screen.

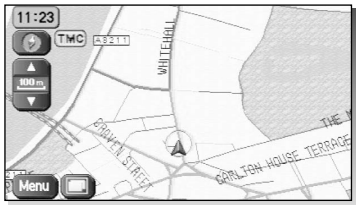


2


CAUTION
Most functions are inhibited while the vehicle is in motion.
Please read the handbook for operating instructions.
Always obey traffic regulations.
Agree

Read CAUTION carefully, and select Agree.

CAUTION
Most functions are inhibited while the vehicle is in motion.
Please read the handbook for operating instructions.
Always obey traffic regulations.



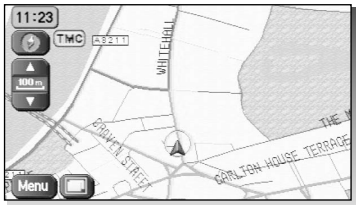
The Current Position screen appears.

- The switches displayed on the screen can be selected by actually touching the screen.
- You can select the language by touching . You can also alter the language by Language Selection. (see page 6)
  If 3 minutes elapse without any operation, the display changes automatically to Language Selection. (see page 6)
- The CAUTION screen remains on the display unless you select Agree.
- When you use Navigation System for the first time, Greenwich Mean Time is displayed. Set the right time with <Set Clock> (see page 37).
- When you operate this car navigation system using Remote Control (KNA-RC300, optional), read "Remote Control" section on page 54 first, then operate subsequently.

Language Selection

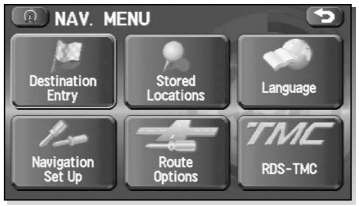
You can change the language of the menu and the voice guidance.

1



Select Menu.

2



Select Language (Language).

3

Select your preferred language from the list.

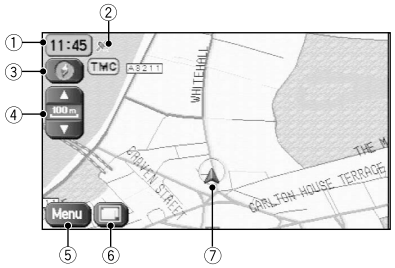
- : Displays up to five previous items.
- : Displays the previous item.
- : Displays the next item.
- : Displays up to five of the next items.

- The LANGUAGE screen can also be displayed even if has been selected on the CAUTION screen (see page 5).
- KNA-VC300 is regired for Voice Recognition.

Markers (and Controls) Displayed on Maps

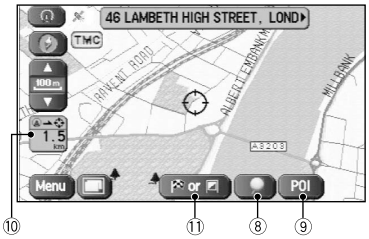
Screens Before Setting Route

<Current Position screen>



Scroll the map

<Scroll screen>



① **Time display**
Displays the current time.

② **GPS (Global Positioning System) marker**
Shows the status of the signal from the GPS satellite. When this marker appears, the GPS satellite signal is being received and used to calculate the position of your vehicle.

③ **Map Orientation control**
Shows and Changes the Map Orientation. (see page 9)

④ **Zoom Out/Zoom In control, scale display**
Press ▲ to display a wide area map and ▼ to display a detailed map. The numbers on the display indicate the scale of the map currently shown.

⑤ **Menu control**
Shows the menu. (see page 8)

⑥ **Screen Configuration**
Switches to the display of route guidance. (see page 22)

⑦ **Vehicle marker**
Shows the current position and direction of your vehicle.

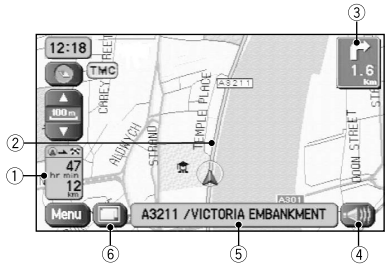
⑧ **Store Memory Point button**
Stores markers on the map.
This button only appears when the screen is selected, and disappears after a few seconds.

⑨ **POI (Point of Interest) Display button**
Displays the POI Selection screen. (see page 48)
This button appears when the screen is selected, and disappears after a few seconds.

⑩ **Distance from current position**
Displays the distance from the current position to the position pointed by ⌖ .

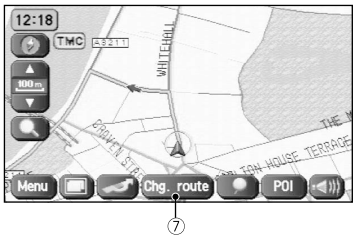
⑪ **Destination/Way Point button**
The destination or way point will be set at the position pointed by ⌖ in the scroll screen.

Screens During Route Guidance



Select the screen

(5 seconds)



① **Distance and Time to Destination display**
Displays the time* and distance to the destination or way point.
Selecting this will display the next and further information on the way point or time and distance to the destination.
(* Either required time or estimated time arrival)

② **Route display**
Shows the provided route as a thick green line.

③ **Turn Arrow display**
Shows the direction to turn at the next junction and the distance to the junction.

④ **Repeat Voice button**
Repeats the last voice guidance message.

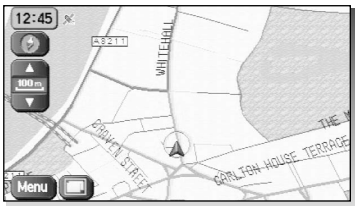
⑤ **Current Road Name**
Shows the name of the road you are currently driving on.

⑥ **Display Whole Route button**
This shows the entire route. (see page 22)

⑦ **Change Route button**
Displays the Route Option menu so that settings for route calculation can be changed.

Menu Screen Change Chart

<Current Position screen>



<Menu screen>

Destination Entry	Address	page 14
	Point of Interest	page 16
	Select from Map	page 17
	Postcode	page 21
	Memory Point	page 15
	Previous Destination	page 17
	Junction	page 20
	Motorway Ent/Exit	page 18
	Coordinates	page 19
Stored Locations	Memory Points	page 39
	Avoid Area	page 43
	Dest. & Way Pt.	page 26
	Home	page 44
	Previous Dest.	page 45
	Preset Dests.	page 46
Language	Language	page 6
Navigation Set Up	User Settings	page 32
	Quick POI Selection	page 33
	Volume	page 33
	2D/3D View	page 34
	Calibration	page 35
	Set Clock	page 37
	Remote Control	page 54
	Restore System Defaults	page 37
Route Options	Search conditn	page 25
	Detour	page 25
	Route Pref.	page 26
	Dest. & Way Pt.	page 26
	Display route	page 29
	Route preview	page 29
RDS-TMC	RDS-TMC	page 50

TMC is displayed only when KNA-TM320 (optional) is connected.

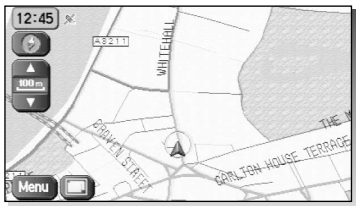
Map Operations

Changing the Map Orientation

Either the direction in which you are headed or north can be shown as upwards on the map.

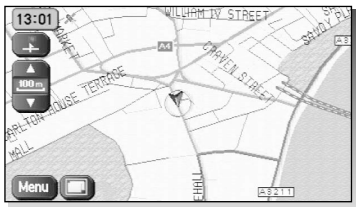
1 **Select or .**

<Heading Up>



Selecting rotates the map to so that direction you are heading is always shown as upwards on the screen (the red arrow indicates North):

<North Up>

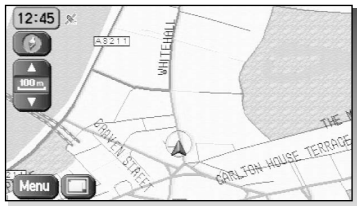


Selecting rotates the map to so that North is always shown as upwards on the screen:

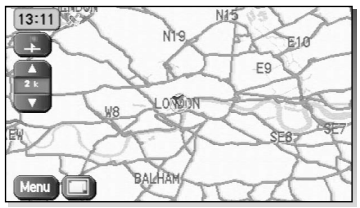
Map Operations

Changing the Map Scale

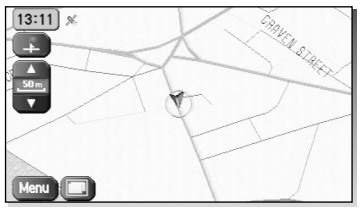
You can increase or decrease the scale of the map.

1 

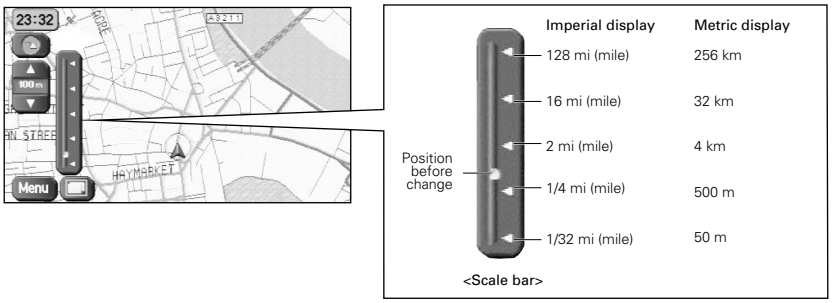
Select ▲ or ▼ to change the map scale.



Selecting ▲ or ▼ changes the scale of the map as shown left.



- You can keep selecting ▲ or ▼ to continually change the map scale.
- By touching the right of the scale bar after ▲ or ▼ is selected, you can directly change between 5 scale levels.



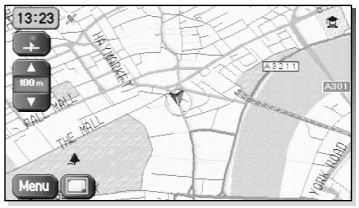
- The scale can be displayed in imperial or metric units. To change the units, see page 32.

Set Route

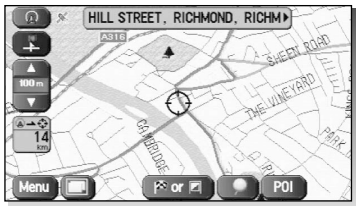
Setting Destination

Setting Destination by Scrolling the Map

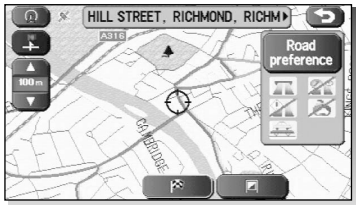
You can set the destination or way point if the exact address not known.

1 

Touch the screen to scroll the map until ⌖ is at the destination point or way point.

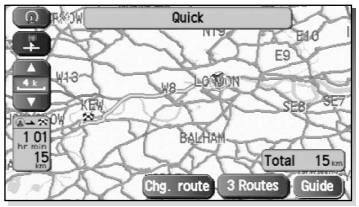
2 

Select or (Destination or Way Point).

3 

Select (Destination).
Route calculation will be carried out and the entire route will be displayed on the map.

Select (Way Point) to set the address as a way point on your route (see page 38). You can set up to 5 way points per trip.

4 

Select Guide.
Route guidance begins using displayed route.

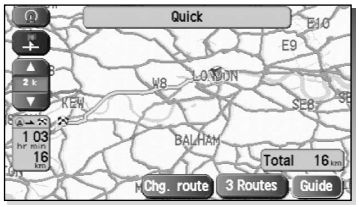
- If your desired route cannot be found, Chg. route (Change route) allows the route option settings to be changed. (see page 24)
- Selecting Guide for five seconds and more will start the Demo mode. Selecting will cancel the Demo mode.

Set Route

■ Selecting route

When the destination set, it is simultaneously calculated for three types of route (Quick, Normal, and Short). You can select the route used actually out of them.

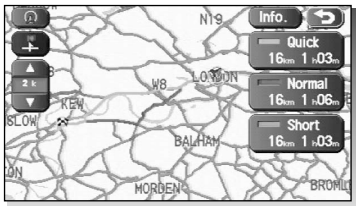
1



Select 3 Routes **.**

The calculation route can be selected from one of three types namely, Quick (the fastest route), Normal (the standard route), or Short (the shortest route).

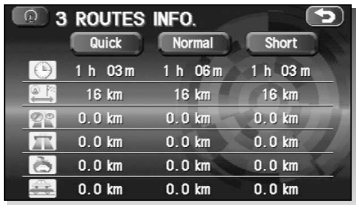
2



Select Info. **(Information).**

Details regarding the individual routes (i.e., required time, total distance, roads used, etc.)

3

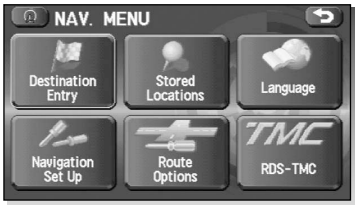


Select either Quick **,** Normal **, or** Short **, and then select** Guide **when you have decided on the route to be used.**

Setting Destination from the Navigation Menu

You can set the destination using various ways provided by the system.

1 **Select** Menu**.**

2 

Select Destination Entry **(Destination Entry).**

3

Select the item you want.

Address	(Address)*	see page 14
Point of Interest	(Point of Interest)*	see page 16
Select from Map	(Select from Map)	see page 17
Postcode	(Postcode)*	see page 21
Memory Point	(Memory Point)	see page 15
Previous Destination	(Previous Destination)	see page 17
Junction	(Junction)*	see page 20
Motorway Ent/Exit	(Motorway Ent/Exit)	see page 18
Coordinates	(Coordinates)	see page 19
	(Home)	see page 44

You can switch between screens by selecting (Next Page) or (Prev. Page).

- Depending on the selected area, you may not be able to search from the post code.
- If the destination setting is different to the Search Area shown in the right of the screen, you must select Change and designate the search area again.
- The functions marked with an asterisk * search the Area set with Change (Change Search Area) (see page 21).
- Depending on the search method or the display status of the map, the searched point may be different from the place where the facility you want to visit actually exists.

Set Route

■ Address

Before Steps

Menu ► Destination Entry (Destination Entry) ► Address (Address)

1

Enter the street name.
If the some letters of a street name are entered, the desired street can then be selected from the displayed list.

: Selecting this deletes the character that was last entered. Selecting it continuously deletes all the characters that have been entered.

You can switch between the input screens showing different input characters by selecting Others, Sym. (symbols) or A-Z.

2

Select List.

3

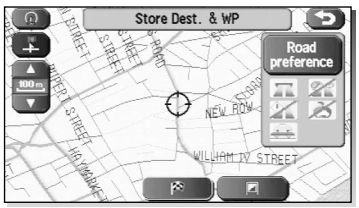
Select the street from the list.

4

Select the right town from the list.
If the same street name exists in more than one town, a list of those towns is shown.

Input name: Displays the Street name input screen.

5



Select (Destination) to set the address as your final destination.
Route calculation will be carried out and the entire route will be displayed on the map.

Select (Way Point) to set the address as a way point on your route. You can set up to 5 way points per trip.

6

Select Guide.
Route guidance begins using displayed route.

If your desired route cannot be found, Chg. route (Change route) allows the route option settings to be changed. (see page 24)

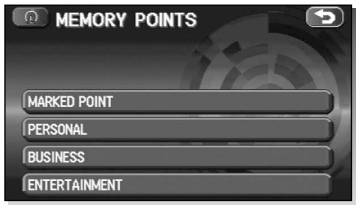
- If the map disc contains no house number data, an error message will be displayed and the map for the street will be displayed allowing you to set the destination.
- If your destination is not on a road, set a destination point on main road nearest to your actual destination.

■ Memory Point

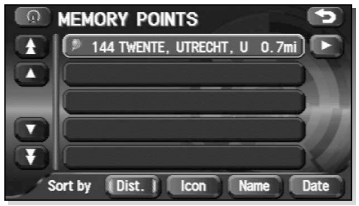
If you have stored a memory point, you can make it the destination.

Before Steps

Menu ► Destination Entry (Destination Entry) ► Memory Point (Memory Point)

1 

Select the category for the desired memory point.

2 

Select the desired Memory Point.

: Displays up to five previous suggestions.
: Displays the previous suggestions.
: Displays the next suggestions.
: Displays up to five of the next suggestions.

3 **Select (Destination) or (Way Point).**

- Dist., Icon, Name, or Date can be selected to change the sequence in which memory points are displayed.
- You cannot use this function if no Memory Point is stored. To store Memory Points, see page 39.

Set Route

■ Home/Stored Destination

If you have already stored your home address, you can set this as your destination. Similarly, if destinations are stored in advance, they can be selected as the current destination in a one-touch operation.

Before Steps

Menu ► Destination Entry (Destination Entry)

1

Select (Home) or destinations 1 through 5.
The map for the area around your Home location or around the stored destination will be displayed.

2

Select (Destination) or (Way Point).

The icon (Home) or 1 through 5 is displayed after you have stored your home position or destinations. For how to store your home position or destinations, see page 44.

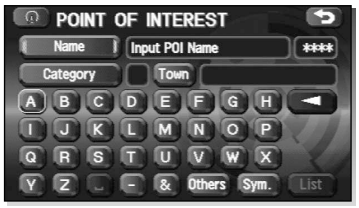
■ Point of Interest

You can find a point of interest from those listed and make it your destination.

Before Steps

Menu ► Destination Entry (Destination Entry) ► Point of Interest (Point of Interest)

1



Enter the name of the point and select List.

2

Select the desired point of interest from the list.

- : Displays up to five previous suggestions.
- : Displays the previous suggestions.
- : Displays the next suggestions.
- : Displays up to five of the next suggestions.
- Dist. sort: Sorts the list by distance.
- Name sort: Sorts the list in alphabetical order by name.

3

Select (Destination) or (Way Point).

- If several points of interest share the same name, they will be listed on-screen. Select your desired destination from this list.
- If there is more than one item with the same name, select Category or Town to shorten the list.
- Displayed information about each facility might be changed. You are recommended to check the location or business days/hours before departure.

■ Previous Destination

This lets you choose one of the most recent 100 destinations or way points and make it your new destination.

Before Steps

Menu ► Destination Entry (Destination Entry) ► Previous Destination (Previous Destination)

1

Select the Previous Destination from the list.

: Displays up to five previous suggestions.
: Displays the previous suggestions.
: Displays the next suggestions.
: Displays up to five of the next suggestions.

2

Select (Destination) or (Way Point).

Name or Date can be selected to change the sequence in which previous destinations are displayed.

■ Select from Map

You can find a location on the map that was last displayed and make it your destination.

Before Steps

Menu ► Destination Entry (Destination Entry) ► Select from Map (Select from Map)

1

Scroll the map until ⌖ is at the destination or way point.

When you operate using Remote Control (optional), press CANCEL key first.

2

Select (Destination) or (Way Point).

Set Route

■ Motorway Entrance/Exit

You can find the name of a motorway entrance or exit from those listed and make it your destination or way point.

Before Steps

Menu ► Destination Entry (Destination Entry) ► Motorway Ent/Exit (Motorway Ent/Exit)

1

Enter the name of the motorway and select List.

2

Select the name of the motorway you want.

: Displays up to five previous suggestions.
: Displays the previous suggestions.
: Displays the next suggestions.
: Displays up to five of the next suggestions.

3

Select Entrance or Exit.

4

Select the name of the street to enter from or exit to.

Input name: Allows you to enter the street name.
Dist. sort: Sorts the list by distance.
Name sort: Sorts the list in alphabetical order by name.

5

Select (Destination) or (Way Point).

■ Coordinates

This function allows destinations to be set using latitude and longitude.

Before Steps

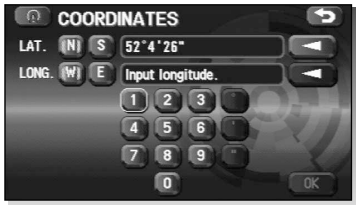
Menu ► Destination Entry (Destination Entry) ► Coordinates (Coordinates)

1

Enter the latitude.

This can be done using the number keys in combination with [°] (degrees), [‘] (minutes), and [“] (seconds).

2



Enter the longitude.

N : Switches over to north latitude.
S : Switches over to south latitude.
W : Switches over to west longitude.
E : Switches over to east longitude.

◄ : This deletes the last character entered. Selecting it continuously deletes all of the characters entered.

3

Select OK.

4

Select (Destination) or (Way Point).

Set Route

■ Junction

Designate the junction with 2 street names, and search for the place you want.

Before Steps

Menu ► Destination Entry (Destination Entry) ► Junction (Junction)

1

Enter the 1st street, and select List.

2

Select the street you want from the list .

: Displays up to five previous suggestions.
: Displays the previous suggestions.
: Displays the next suggestions.
: Displays up to five of the next suggestions.

3

JUNCTION
1st street
MOERDIJKBEEK WEST
1
2nd street
Input 2nd street name
3
A B C D E F G H
I J K L M N O P
Q R S T U V W X
Y Z _ - & Others Sym. List

Specify the 2nd street with the same operation.

4

Select (Destination) or (Way Point).

The junction can't be searched for in the cases shown below.
- The 2 streets selected don't cross
- A motorway and highway
- A street for right or left turns only
- A one way street
- A street for U-turns
- Roads that cross on the inside lane
- A on/off ramp
- A frontage street
- There may be cases when the junction can't be searched for on other roads also.

■ Postcode

This finds a location by its postcode and makes it the destination.

Before Steps

Menu ► Destination Entry (Destination Entry) ► Postcode (Postcode)

1

Enter the postcode and select 1 through 0.

To set your destination, see page 17.

◄: This deletes the last character entered. Selecting it continuously deletes all of the characters entered.

If a number of candidates exist as a result of, for example, different area codes, these will be displayed in a list. Your desired destination can then be selected from the list.

■ Change (Change Search Area)

This designates the general geographical area where the destination is located.

Before Steps

Menu ► Destination Entry (Destination Entry) ► Change

1

Select the desired Search Area.

▲ : Displays up to five previous suggestions.
▼ : Displays up to five of the next suggestions.

2

Select ↩.
DESTINATION ENTRY Menu screen appears.

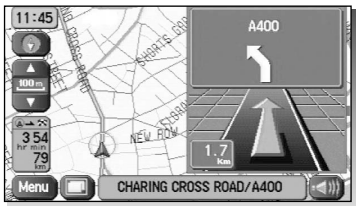
The SEARCH AREA screen above is the imaged screen. It may be slightly different than the screen of the unit.

Route Guidance

Guidance Screen

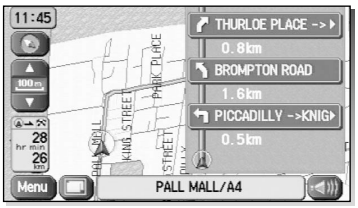
While driving along during route guidance, the directions for the next junction where you have to turn are shown as a Turn Arrow or Turn List.

<Turn Arrow>



Directions are indicated by an arrow.

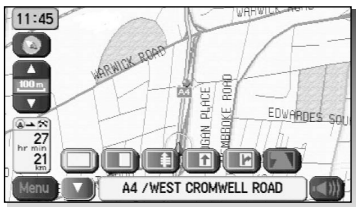
<Turn List>



Directions are indicated as a list.

1 **Select (Screen configuration).**

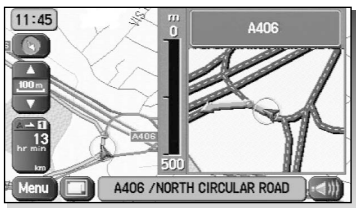
2 **Select either (Turn Arrow) or (Turn List).**



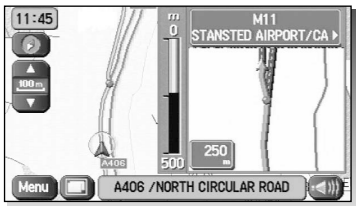
If no items are to be selected, the screen can be closed by selecting .

Enlarged Junction Diagram

Before a fork in the road, an enlarged diagram of the junction automatically appears in a second screen. This is to make route guidance even clearer.



During route guidance, an enlarged diagram of an approaching fork or junction appears. When you drive past the junction, the enlarged diagram disappears.



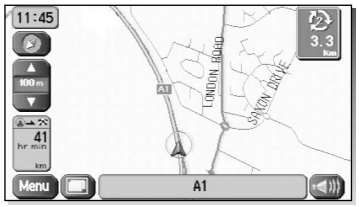
During route guidance, an enlarged diagram of the motorway automatically appears in a second screen as you approach a fork on the motorway. This is to make route guidance even clearer.

The following procedure can be used to recall the lane display for the intersection or motorway which was most-recently displayed.
1. Select (Screen configuration).
2. Select (Re-display of intersection/range guidance).
   If no items are to be selected, the screen can be closed by selecting .

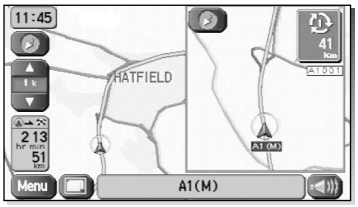
Display Dual map

It is possible to perform two-screen display of maps.

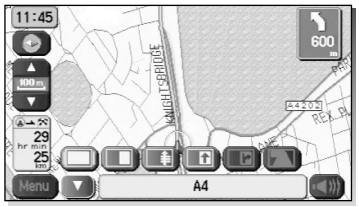
<Single map>



<Dual map>



1 **Select (Screen configuration).**

2 

Select (Dual map).

If you wish to return to one-screen display, select (Single map).
If no items are to be selected, the screen can be closed by selecting .

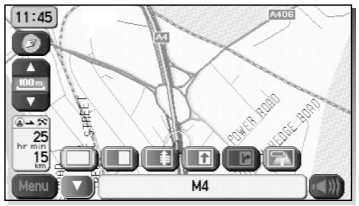
If you wish to modify the display selections for the right-hand screen, touch the top of this screen. When the settings have been completed, select .

- Refer to page 10 for details regarding scale changes.
- Refer to page 48 for details regarding POI.
- Refer to page 34 for details regarding 3D.

Motorway information

A list of buildings and facilities on the motorway can be displayed.

1 **Select (Screen configuration).**

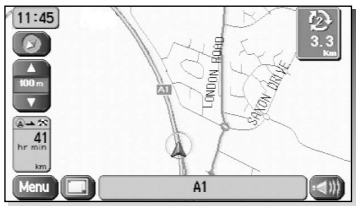
2 

Select (Motorway information).

If no items are to be selected, the screen can be closed by selecting .

Replaying Voice Guidance

This function allows you to listen to the last voice guidance message again during route guidance.

1 

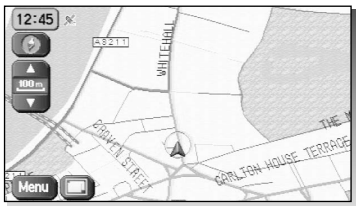
Select .
You can hear the voice guidance again.

Route Options

Setting Route Options

During route guidance you can change the route options, stop or check the route.

1



Select Menu.

2

Select Route Options **(Route Options).**
The Route Options screen appears.

Search conditn **(Search conditn):**
Set the method for route calculation between locations. (see page 25)

Detour **(Detour):**
This calculates an alternative route from your current position within a specified distance. (see page 25)

Route Pref. **(Route Pref.):**
Allows you to alter the route search conditions and recalculate. (see page 26)

Dest. & Way Pt. **(Dest. & Way Pt.):**
Modify the destination and way points. (see page 26)

Display route **(Display route):**
Allows you to confirm the route information during guidance. (see page 29)

Route Preview **(Route preview):**
The calculation route can be checked using a simulation run. (see page 29)

Calculate : Recalculates the route.
Cancel Guidance : Stops route guidance. Note that this deletes the destination and way points. To start guidance again, select Calculate.

Recalculating the route sometimes provides the same route as before.

Search Condition

You can set the conditions and the mobile navigation system calculates a route.

Before Steps

Menu ► Route Options (Route Options) ► Search conditn (Search conditn)

1

You can select Quick , Normal , or Short to reach the next way point/destination from the current position.

Quick: The route with the quickest time will be used.
Normal: The standard route will be used.
(You can only select Quick or Short to reach the way points after the next.)
Short: The route with the shortest distance will be used.

2

Select Calculate.

3

Select Guide.

Detour

You can specify the distance from your current position and the mobile navigation system calculates an alternative route.

Before Steps

Menu ► Route Options (Route Options) ► Detour (Detour)

1

Select the detour distance using 1km , 3km , 5km , or Whole route.

The system will then calculate a route which detours from the current location by the selected distance.

2

Select Guide.

If you are driving off the route, it will not be possible to calculate a detour route.

Route Options

Route Preferences

The function allows settings to be made for the roads to be used and to start route calculation.

Before Steps

Menu ► Route Options (Route Options) ► Route Pref. (Route Pref.)

1

Each time a button is selected it will toggle between usage and non-usage of the corresponding roads or ferries.

2

Select Calculate **.**

- Calculate can be selected during route guidance.
- The route will not necessarily follow the specified conditions.

Destination & Way Points

The destination or way points used in route calculation can be changed using this function.

■ Addition of way points

The following procedure can be used to add new way points to the current route for calculation.

Before Steps

Menu ► Route Options (Route Options) ► Dest. & Way Pt. (Dest. & Way Pt.)

1

Select Add **.**

2

Set the way point using your preferred method.

When a new destination is set by (Destination), it will replace the current destination and route calculation will be carried out once again.

3

When the required way points have been setup, indicate the order in which they are to be visited.

Choose the location to be added, and then select Add.

4

Select Calculate **.**

- When a new destination is set by (Destination), it will replace the current destination and route calculation will be carried out once again.
- Step 3 is required when setting the 2nd way point and more after.
- Repeat step 1 and 3 until all desired way points have been set.

■ Modification of Destination or Way Point Positions

This function allows the calculated route will be displayed and the positions of the destination or way points to be modified.

Before Steps

Menu ► Route Options (Route Options) ► Dest. & Way Pt. (Dest. & Way Pt.)

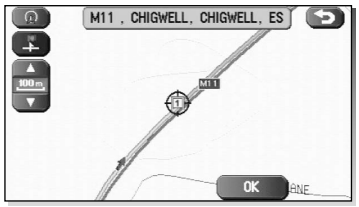
1 **Select List.**

2

Select Chg. Loc. (Change Location).

3 **Select the button for the location to be modified.**
The map for the area around your current location will be displayed.

4



Move ⌖ to location and then select OK.

5 **Select Calculate.**

■ Modification of the Visiting Order

The order in which way points are to be visited can be modified using this function.

Before Steps

Menu ► Route Options (Route Options) ► Dest. & Way Pt. (Dest. & Way Pt.)

1 **Select List.**

2

Select the buttons for the way points in the order that they should be visited.

If you wish to cancel an indication, select Undo.

3

When the sequence has been completed, the visiting order will be updated automatically.

4 **Select OK.**

5 **Select Calculate.**

Route Options

■ Deletion of Destination or Way Points

The destination or any way point which has been set may be deleted using this function.

Before Steps

Menu ► Route Options (Route Options) ► Dest. & Way Pt. (Dest. & Way Pt.)

1 **Select Delete.**

2

Select the button corresponding to the destination or way point to be deleted.

3

Select Yes when the confirmation message is displayed.

Select No to cancel the deletion.

4 **Select Calculate.**

■ Deletion of Destination and All Way Points

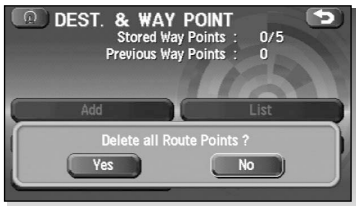
The destination and all way points which have been set may be deleted using this function.

Before Steps

Menu ► Route Options (Route Options) ► Dest. & Way Pt. (Dest. & Way Pt.)

1 **Select Delete all.**

2



Select Yes when the confirmation message is displayed.

Select No to cancel the deletion.

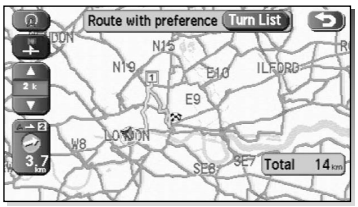
Display Route

Use this function to display the entire calculated route.

Before Steps

Menu ► Route Options (Route Options) ► Display route (Display route)

1



Select Turn List.
The Entire Route screen appears.

Avoid : You can set any areas you want to avoid from the list of street names.
Reroute : Recalculates the route.

If the data for the route cannot be shown on one screen, you can scroll using ▲ and ▼.

2

Select Guide.

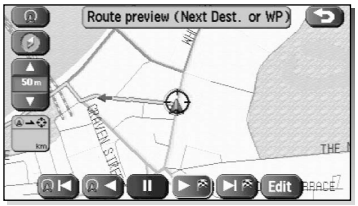
Route Preview

The mobile navigation system can show you an automated simulation of the calculated route.

Before Steps

Menu ► Route Options (Route Options) ► Route Preview (Route Preview)

1



Use the buttons displayed onscreen to carry out a simulation run.

- : Move to the start point.
- : Carry out a simulation run in the direction of the start point. When the run has been started, this button will be displayed as , and when selected, it will cause running to take place at high speed.
- : Stop the simulation run.
- : Carry out a simulation run in the direction of the destination. When the run has been started, this button will be displayed as , and when selected, it will cause running to take place at high speed.
- : Move to the destination.
- Edit : Displays the EDIT ROUTE PREVIEW screen. (see page 30)

The speed of the simulation run can be altered by changing the scale of the map.
The simulation run is faster with a wider area map and slower with a closer up map.

Route Options

■ Setting the conditions for simulation run

Before Steps

Menu ► Route Options (Route Options) ► Route Preview (Route Preview)

1

Select Edit.

EDIT ROUTE PREVIEW screen apppears.

To next Dest. or WP :

Stops at the destination or the next way point.

To next POI :

Stops at a point of interest which has been setup on the route.

Delete :

Delete the POI which has been selected.

POIs:

Displays the six POIs from Quick-POI storage. When one of these is selected, it will be displayed on the map; furthermore, Others can be selected to display items other than those shown here. For more details, refer to page 33.

If, for example, Restaurant is selected for POIs and a simulation run is started using To next POI, this will then stop at a restaurant on the route.

If Info. is selected here, the system will display information relating to the establishment in question.

IMPORTANT

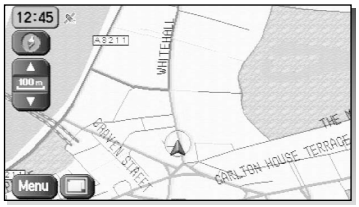
Finish the simulation run before actually starting to drive. The simulation run will automatically finish when you actually start to drive, but this can lead to an error in the display of the current position of your vehicle.

Navigation Set Up

Setting Navigation System

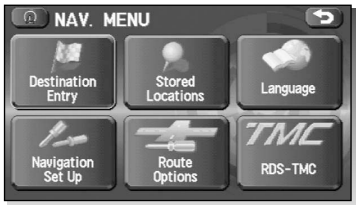
You can alter the map display conditions, the route guidance conditions and show the system information.

1



Select Menu.

2



Select Navigation Set Up (Navigation Set Up).
The NAVIGATION SET UP screen appears.

Select a setting button while changing the screen using ▶ or ◀.

User Settings (User Settings):
Allows you to change the settings for the screen display and sound. (see page 32)

Quick POI Selection (Quick POI Selection):
Allows you to select the categories that are displayed when the menu is selected from the Current Position screen. (see page 33)

Volume (Volume):
Perform settings for voice guidance and adjust the volume. (see page 33)

2D/3D View (2D/3D View):
Allows you to switch between a 2D and 3D map display screen. (see page 34)

Calibration (Calibration):
Allows you to correct any error in the display of the vehicle's position or direction. (see page 35)

Set Clock (Set Clock):
Set the clock. (see page 37)

Remote Control (Remote Control):
Register user-setting keys for the remote control. (The remote control is an optional extra.) (see page 55)

Restore System Defaults (Restore System Defaults):
Restore the system settings to their original condition (i.e., upon factory shipment). (see page 37)

Navigation Set Up

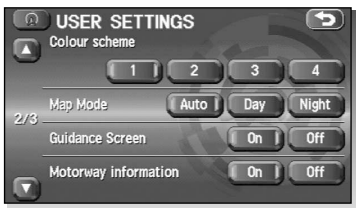
User Setting

You can change the settings for the screen display and sound.

Before Steps

Menu ► Navigation Set Up (Navigation Set Up) ► User Settings (User Settings)

1



Select the desired item.

Select a setting button while changing the screen using ▲ or ▼.

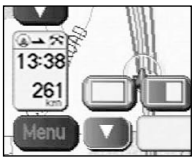
Distance:
Units for distance can be selected as Metric or Imper..

Notify traffic restriction:
The display of warnings during route guidance when passing through areas with traffic restrictions can be turned on or off.

Audio Mute:
Select whether the audio is to be muted during voice guidance.

Keyboard layout:
The layout of input keys can be selected as ABC or QWE.

Arrival Time:
The time which is displayed until the destination or a way point can be set as an estimated arrival time or the remaining time. Select ● to display the estimated arrival time, or ● to display the remaining time.



<Estimated arrival time>

<Required remaining time>

Colour scheme:
Select a screen color from 1 of the 4 options.

Map Mode:
The display can be set to either Day or Night illumination mode.

- Auto : The display will automatically switch between Day and Night illumination mode when the headlights are turned off and on respectively.
- Day : The display will be presented in Day illumination mode regardless of whether the headlights are on or off.
- Night : The display will be presented in Night illumination mode regardless of whether the headlights are on or off.

Guidance Screen:
Allows selection of whether guidance is to be displayed.

Motorway information:
Allows selection of whether guidance screen is to be displayed while driving on Motorway

Border guidance:
Allows selection of whether guidance will be displayed when crossing international borders.

Quick POI Selection

This function allows you to set the categories on that are displayed when the (Point of Interest) menu is selected the map. Quick POI enables you to store up to six different kinds of category which you use most regularly. (see page 48 to display markers on the map and search for nearby points of interest)

Before Steps

Menu ► (Navigation Set Up) ► (Quick POI Selection)

1

Select the button for Quick POI storage.

Default : This button allows you to restore the factory setting.

2

Select a category.
Once selected, subcategories will be displayed.

List all Categories : Subcategories from all of the individual categories will be displayed together.

3

Select the subcategories to be displayed on the map.

Repeat the above steps 1 to 3 to add further POI markers displayed on the menu.

Volume Adjustment

This function replaces all the settings in the mobile navigation system with the initial default settings.

Before Steps

Menu ► (Navigation Set Up) ► (Volume)

1

Select the appropriate button to set the volume to between 1 (minimum) and 7 (maximum).

Off : Sound output will be muted.

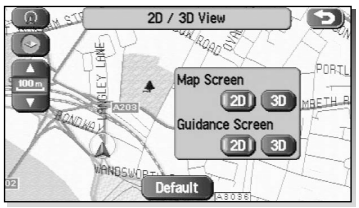
Navigation Set Up

2D/3D View

You can switch between a 2D and 3D display screen. You can also change the viewing angle of the 3D display.

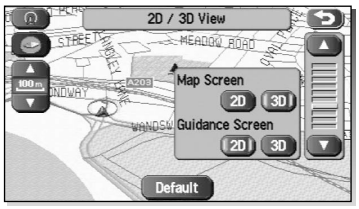
Before Steps

Menu ► Navigation Set Up (Navigation Set Up) ► 2D/3D View (2D/3D View)

1 

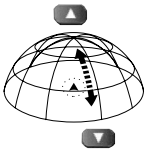
Select a 2D or 3D display for the Map Screen and the Guidance Screen.

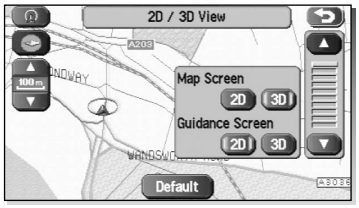
Map Screen: Changes the map screen display.
Guidance Screen: Changes the route guidance screen, such as the enlarged junction diagrams.

2 

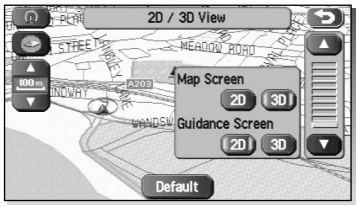
Select ▲ or ▼ on the angle indicator.

In situations where 3D is selected on the Map screen, it will be possible to modify the map angle.
The view point will be higher up when closer to ▲, and lower down when closer to ▼.

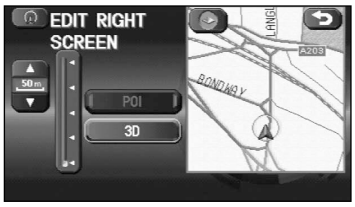




Default: Restores the initial default angle setting.



To implement 3D display on the right side of a dual map, touch the top of the right-hand screen and then select 3D.



Calibration

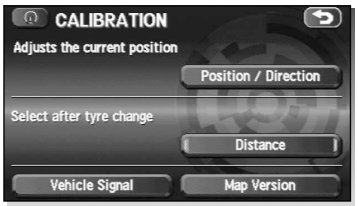
This function allows you to correct any error in the position or direction of your vehicle display.

■ Adjusting Current Position and Direction

Before Steps

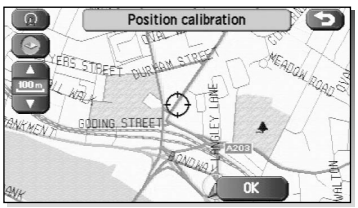
Menu ► Navigation Set Up (Navigation Set Up) ► Calibration (Calibration)

1



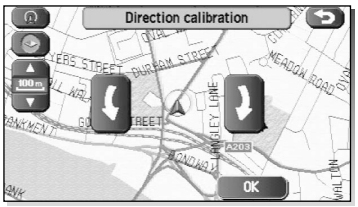
Select Position / Direction **.**

2



Move ⌖ to the correct position and select OK **.**

3



Use ◄ or ► to adjust direction in which you are heading, and select OK **.**

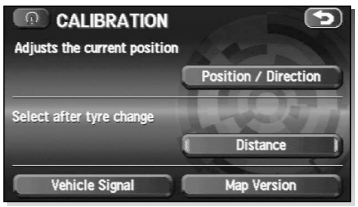
■ Distance

This function automatically corrects any error in the display of the current position that might occur after tyre replacement.

Before Steps

Menu ► Navigation Set Up (Navigation Set Up) ► Calibration (Calibration)

1



Select Distance **.**

You will have to drive about 6 miles (10km) before distance correction is complete.

Navigation Set Up

■ Vehicle Signal

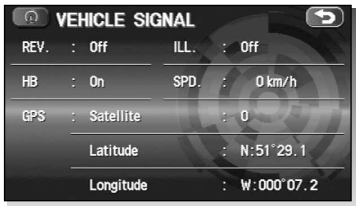
This function allows vehicle and GPS satellite data to be displayed.

Before Steps

Menu ► Navigation Set Up (Navigation Set Up) ► Calibration (Calibration)

1

Select Vehicle Signal.



VEHICLE SIGNAL screen appears.

■ Map Version

This function enables you to check the version of the map disc you are currently using.

Before Steps

Menu ► Navigation Set Up (Navigation Set Up) ► Calibration (Calibration)

1

Select Map Version.

The version of the map disc you are now using is shown.

Set Clock

The current time is set using this function. Since time notification is provided by a GPS satellite, time-zone adjustment can be carried out automatically.

Before Steps

Menu ► Navigation Set Up (Navigation Set Up) ► Set Clock (Set Clock)

1

Select 24H if you would prefer 24-hour display; 12H for 12-hour display.

2

Select +1 hour to move the setting ahead by one hour, and similarly, select -1 hour to move it back by one hour.

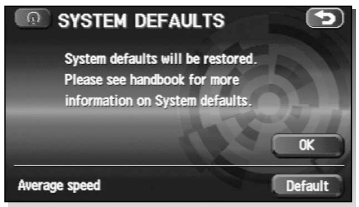
Restore System Defaults

This function replaces all the settings in the mobile navigation system with the initial default settings.

Before Steps

Menu ► Navigation Set Up (Navigation Set Up) ► Restore System Defaults (Restore System Defaults)

1



Select OK.

Default: Restores the average speed setting to the initial value upon factory setting.

IMPORTANT

If you execute Restore System Defaults, all of your Stored setting data will be deleted.

[Default List]

Item	Initial condition
Map display	
Search Area	B (Belgium)
Display Guidance Language	UK English
Map Orientation (1 and 2 screen)	North up
Map Display Mode	2D, single-screen display
Map Display Scale	Single-screen: 10,000 map (1/16 min) (100 m) Dual-screen: 40,000 map (1/4 min) (500 m)
Map Configuration	Arrow Mode
Q-POI Map Display	Off
Show POI Icon Display	Off
Map Mode	Auto
Right Screen Setting, POI	On
Right Screen Setting, 3D	Off
Passage Point Display/ Current Location, Map Screen (Time Requirement, Time, Direction/Distance)	Next passage point
Passage Point Display/ Full Route, Map Screen (Time Requirement, Time, Direction/Distance)	Destination
On-Route Scroll Setting Mode	Next passage point or Destination mode
On-Route Scroll Display Items	Unselected
Motorway information	Off
Notify Seasonal Restrict	On
Border guidance	On
Language Selection Menu	
Language	UK English
Voice Recognition	UK English

Item	Initial condition
Navigation Setup Menu	
Distance	km
Road Restriction Warnings	On
Audio Mute	On
Keyboard Layout	ABC
Arrival Time	Estimated arrival-time display
Colour Scheme	1
Guidance Screen	On
Q-POI Selection	A : Petrol B : Parking C : All Restaurant D : Hotel E : Hosptal F : Golf Cource
Volume Presets	4
2D/3D View	2D (Map/Guidance Screen) 23° 24h
Remote Control	Short Cut 1: Detour Short Cut 2: Map Direction
Route Options	
Search Condition	Quick
Route Preferences	Allow Motorway :On Allow Toll Road: Off Allow Ferry: Off Allow Restricted Road: Off Allow Seasonal Restricted Road: Off Allow Car Train: On
RDS-TMC Menu	
Show RDS-TMC info.	On
Dynamic navigation	Off
Voice guidance	On
Country	Auto - Germany

Stored Locations

You can store, edit, or delete any destinations, way points, or marked point.

1 **Select** Menu.

2 **Select** Stored Locations **(Stored Locations).**

3 **Select the item you want.**

Memory Points **(Memory Points):**
Places a marker on the map. (see page 39)

Avoid Area **(Avoid Area):**
Stores any areas to be avoided. (see page 43)

Dest. & Way Pt. **(Dest. & Way Pt.):**
Sets the destination (and way points). (see pages 26 through 28)

Home **(Home):**
Stores the location of your home. (see page 44)

Previous Dest. **(Previous Dest.):**
Deletes previously stored destinations (and way points). (see page 45)

Preset Dests. **(Preset Dests.):**
Stores destinations for a maximum of five buttons. (see page 46)

Display Memory Pt. Icons **:**
Displays icons at memory points.

Calculate **:**
Starts route calculation.

Each of the items has four editing functions — Add, List, Delete, and Delete all — as standard.

- Add : Stores a new location.
- List : Displays the list of stored locations.
- Delete : Deletes stored locations.
- Delete all : Deletes all stored locations.

The buttons displayed vary according to the item. (see below)

Memory Points (100)	Add List Delete Delete all Edit Category
Home (1)	Add List Delete
Avoid Area (10)	Add List Delete Delete all

Previous Dest. (100)	Delete Delete all
Dest. & Way Pt. (Destination: 1 Way Point: 5)	Add List Delete Delete all
Preset Dests. (5)	Add List Delete Delete all

The number in the parentheses indicate the maximum items you can store in the memory.

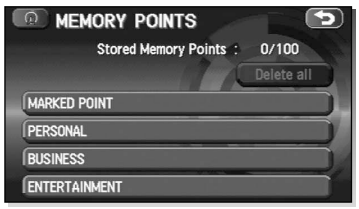
Memory Points

■ Memory Point Storage

Memory points can be classified into one of four categories for storage.

Before Steps

Menu ► Stored Locations (Stored Locations) ► Memory Points (Memory Points)

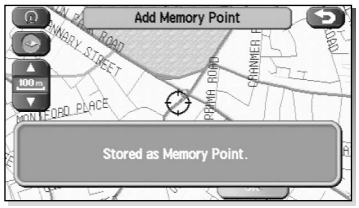
1 

Select the category for storage of the memory point.

2

Select Add **.**

3



Set a memory point using your preferred method.

Up to 100 memory points can be stored. You must delete a memory point that you no longer require (see page 42) before storing a new memory point. The remaining number of spaces in the memory is indicated at the screen.

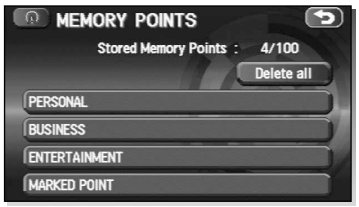
Stored Locations

■ Memory Point Confirmation and Modification

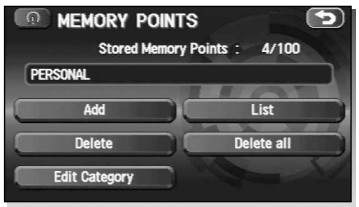
This function allows stored memory points to be displayed in list form and allows names, icons, telephone numbers, and the like to be modified.

Before Steps

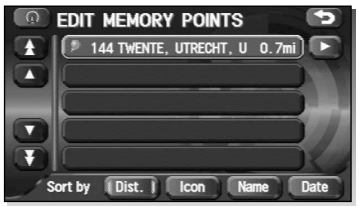
Menu ► Stored Locations (Stored Locations) ► Memory Points (Memory Points)

1 

Select the category of the memory point to be modified.

2 

Select List **.**

3 

Select the memory point to be modified.

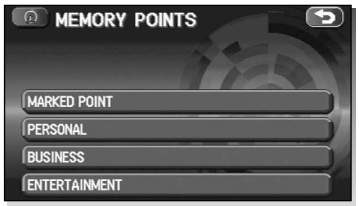
Dist. (Destination), Icon , Name, and Date can be selected to change the sequence in which memory points are listed.

4

Select the button corresponding to the item to be modified.

Icon : Allows the display icon to be selected. Pages 1 and 2 contain standard icons, whereas the With Sound page contains icons which also playback sounds. Select Sound to listen to these sounds.

The With direction (/) of the With Sound contains is used to playback sounds only when you come near the Memory Point from a specific direction. Select the or and set the direction with or .



Category : Allows the storage category to be changed. Select the button corresponding to the new category.

Name : Allows the name to be changed. When editing has been completed, select OK. Furthermore, select Off to display names on the map, or On if these names are not to be displayed.

Position : Allows memory points to be checked and modified on the map screen. After checking, select OK.

Telephone : Allows the telephone number to be modified. When editing has been completed, select OK.

Stored Locations

■ Memory Point Deletion

Stored memory points can be deleted using this function.

Before Steps

Menu ► Stored Locations (Stored Locations) ► Memory Points (Memory Points)

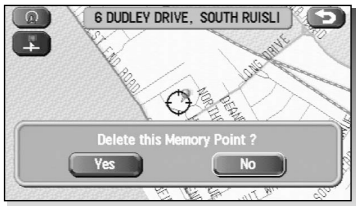
1 **Select the category of the memory point to be deleted.**

2 **Select Delete.**

3

Select the memory point to be deleted.

4



Select Yes when the confirmation message is displayed.

Select No to cancel the deletion.

■ All Memory Point Deletion

This function allows all memory point to be deleted.

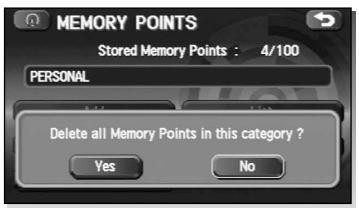
Before Steps

Menu ► Stored Locations (Stored Locations) ► Memory Points (Memory Points)

1 **Select the category of the memory points to be deleted.**

2 **Select Delete all.**

3



Select Yes when the confirmation message is displayed.

Select No to cancel the deletion.

■ Category Name Modification

The category names — Personal, Business, Entertainment, and Market Point — can be changed if so required.

Before Steps

Menu ► Stored Locations (Stored Locations) ► Memory Points (Memory Points)

1 **Select the category whose name is to be changed.**

2 **Select Edit Category.**

3

Erase letters using ◄, enter the new letters, and then select OK.

Avoid Area

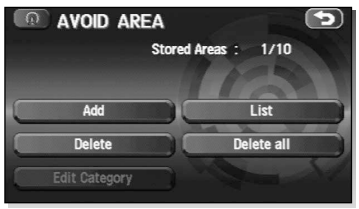
■ Avoid Area Storage

This function allows the storage of Areas to be avoided when calculating routes.

Before Steps

Menu ► Stored Locations (Stored Locations) ► Avoid Area (Avoid Area)

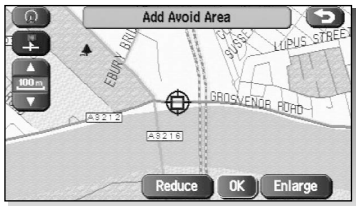
1



Select Add.

2 **Setup an avoid area using your preferred method.**
A map including the Avoid Area appears.
The method for setting avoid areas is identical to that for setting destinations.

3



Select Reduce or Enlarge.

Reduce : Reduces the size of the avoid area.
Enlarge : Increases the size of the avoid area.

4 **Select OK.**

- Reduce the scale of the map to designate a larger area.
- Avoid areas can be set when the scale of the map is 1 km (1/2 mile) or less.

Stored Locations

■ Avoid Area Confirmation and Modification

This function allows stored avoid areas to be displayed in list form and allows them to be modified.

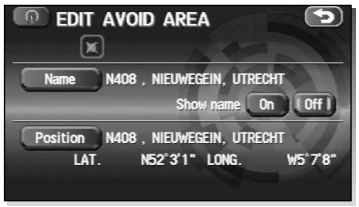
Before Steps

Menu ► Stored Locations (Stored Locations) ► Avoid Area (Avoid Area)

1 **Select List .**

2 **Select the avoid area to be modified.**

3 **Select the button corresponding to the item to be modified.**



For details regarding each button's function, refer to <Memory Point Confirmation and Modification> (see page 40).

The methods for individual deletion and bulk deletion of avoid areas are the same as those described on page 39 for memory points. Specifically, refer to <Memory Point Deletion> and <All Memory Point Deletion> (see page 42).

Home

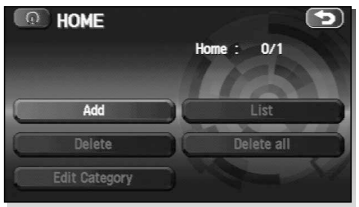
■ Home Storage

This function allows your to store you Home location.

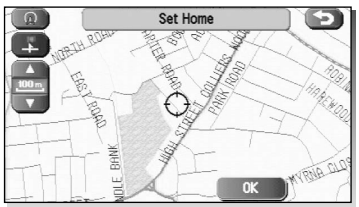
Before Steps

Menu ► Stored Locations (Stored Locations) ► Home (Home)

1 **Select Add .**



2 **Move ⌖ to the Home position and select OK .**



To change the location for your Home, select List and then carry out procedures in the same way as for storage. Furthermore, select Delete to delete the stored Home. Refer to <Memory Point Deletion> (see page 42) for more details regarding Home deletion methods.

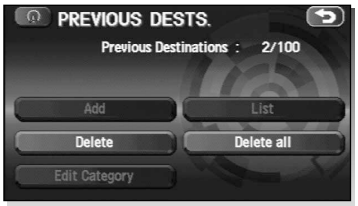
Previous Destination (Deleting Stored Locations)

Previously-set destinations can be deleted using this function.

Before Steps

Menu ► Stored Locations (Stored Locations) ► Previous Dest. (Previous Dest.)

1



Select Delete.

If Delete all is selected, all previous destinations will also be deleted.

2

Select the destination to be deleted.

: Displays up to five previous suggestions.
: Displays the previous suggestions.
: Displays the next suggestions.
: Displays up to five of the next suggestions.
Name : Sorts the list in alphabetical order by name.
Date : Sorts the list by date.

3

Select Yes when the confirmation message is displayed.

Select No to cancel the deletion.

Stored Locations

Preset Destination

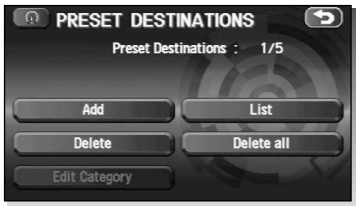
■ Preset Destination Storage

Up to five regularly-used destinations can be stored so that, when required, they can be set for the actual destination in a one-touch operation.

Before Steps

Menu ► Stored Locations (Stored Locations) ► Preset Dests. (Preset Dests.)

1



Select Add **.**

2

Select a preset number.

3

Set a preset destination area using your preferred method.

The method for setting preset destinations is identical to that for setting destinations.

4

Select OK **.**

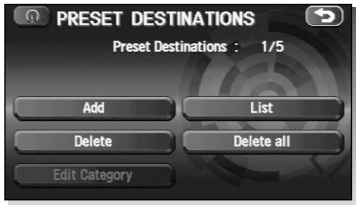
■ Preset Destination Confirmation and Modification

This function allows preset destinations to be displayed in list form and allows them to be modified.

Before Steps

Menu ► Stored Locations (Stored Locations) ► Preset Dests. (Preset Dests.)

1



Select List .

2

Select ① through ⑤ in accordance with the destination to be modified.

3

Select the button corresponding to the item to be modified.

For details regarding each button's function, refer to <Memory Point Confirmation and Modification> (see page 40).

The methods for individual deletion and bulk deletion of preset destinations are the same as those described on page 42 for memory points. Specifically, refer to <Memory Point Deletion> and <All Memory Point Deletion> (see page 42).

Other Functions

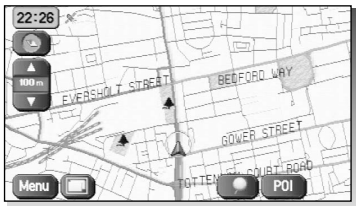
Displaying POI's on a Map

You can select one of the six categories on the menu or List Categories and then select the POI(s) to be displayed on the map.

1

Select the screen.

2



Select POI (Points of Interest).

3

Select the categories to be displayed up to a maximum of five.

For categories other than the six displayed, select List Categories and select them from the list shown.

All Local POI's : Allows you to search for a POI. (see below)

After you make a selection, POI markers will appear on the map.
To delete POIs see page 49.

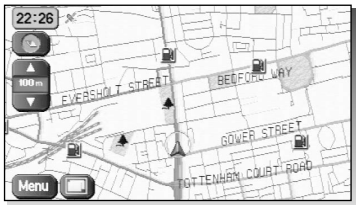
Displayed information about each facility might be changed. You are recommended to check the location or business days/hours before departure.

■ Local Search

1

Select the screen.

2

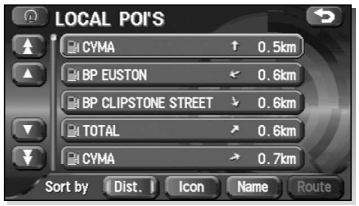


Select POI (Points of Interest).

3

Select All Local POI's (All Local Points of Interest).

4



Select the POI you want to find from the listed categories.

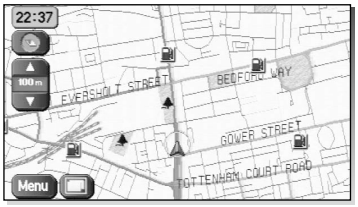
- : Displays up to five previous suggestions.
- : Displays the previous suggestions.
- : Displays the next suggestions.
- : Displays up to five of the next suggestions.
- Dist. : Sorts the list by distance.
- Icon : Sorts the list according to the types of icons.
- Name : Sorts the list in alphabetical order by name.

After you make a selection, the point of interest you selected appears on the map.

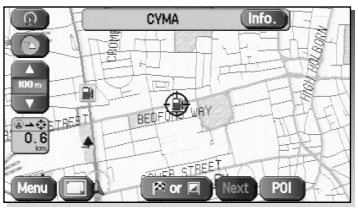
Showing POI Data

You can display POI (Point of Interest) data, such as name, address and telephone number.

1 **Display the POI. (see pages 33 and 48)**

2 

Select the desired POI by moving ⌖ on top of the POI icon.
The name of the selected POI appears.
If no data is stored for the selected POI, the POI name is not displayed.

3 

Select Info. (Information).
The POI's data is displayed.

: Stores the location of POI as a memory point.

Deleting POI Markers

This function deletes any POI markers shown.

1 **Select the screen.**

2 **Select POI (Points of Interest).**

3

Select POI Off (Points of Interest Off).
The POI markers disappear.

RDS TMC

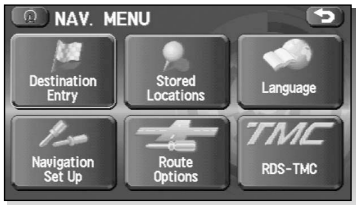
If an RDS-TMC (KNA-TM320) is installed, it will become possible to display and use congestion information. (The RDS-TMC (KNA-TM320) is an optional extra.)

RDS-TMC Settings

Select the country where your car is located at the moment by touching the appropriate switch.

1 **Select** Menu.

2



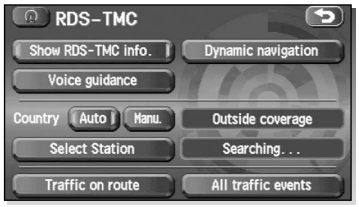
Select TMC RDS-TMC **(RDS-TMC).**

3

Select Show RDS-TMC info..

Dynamic Route Guidance

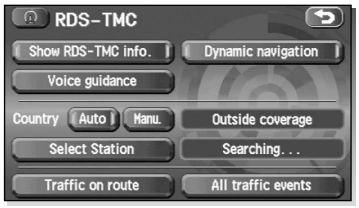
1



Select Dynamic navigation.
When this option is On, the system will recalculate a different route for you when there is a traffic jam on your route.

Voice guidance function

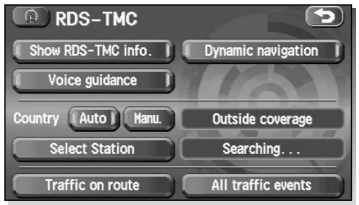
1



Select Voice guidance.
When turned on, voice guidance will be given if a traffic event occurs on your route.

Changing the country using TMC

1



Select Auto or Manu..

Auto : The Navigation System will automatically detect when you pass through a national border and will change the TMC service station to the current country.
Manu. : Manual setting can be performed to set the country whose signal is to be received.

2

Select the desired country from the list.

: Displays up to five previous suggestions.
: Displays the previous suggestions.
: Displays the next suggestions.
: Displays up to five of the next suggestions.

If you move from a country with auto assignment office support into a country without while Auto is selected, the message "Outside coverage" will be displayed until you return to a country with support.

Switching the broadcast station

1

Select Select Station.

2

Select the desired broadcast station from the list.

: Displays up to five previous suggestions.
: Displays the previous suggestions.
: Displays the next suggestions.
: Displays up to five of the next suggestions.

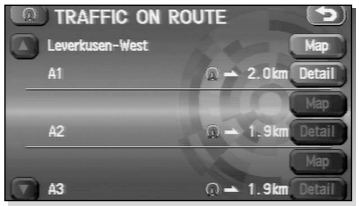
- The system selects a station automatically when this setting is not set up by the user. The system also searches for the station with the best signal, when the reception of the chosen station is getting weak.
- If no broadcast station is found or if there is no response from TMC when Select Station has been selected, the message "No TMC station"/"Searching…" will be displayed.

Displaying traffic events on your route

1

Select Traffic on route.
Traffic events on your route are displayed in sequence from the current position.

2



Select Map to display the position of a traffic event on the map, or Detail to display details and further information.

RDS TMC

Displaying all traffic events

1

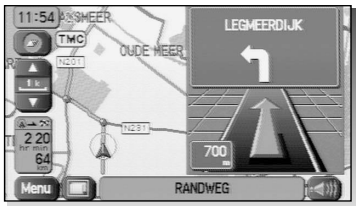
Select All traffic events **.**
All traffic event are displayed in sequence from the current position.

2

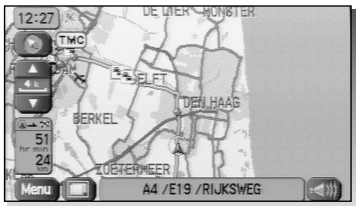
Select Map **to display the position of a traffic event on the map, or** Detail **to display details and further information.**

Displaying RDS-TMC Information

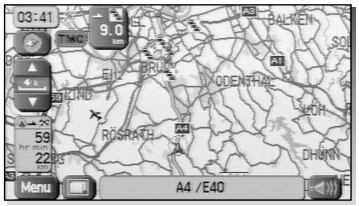
RDS TMC Icon displaying on the map screen.



The TMC Icon is shown on the Map screen when there is a TMC Tuner connected and there is TMC station reception.
In Case of bad or no TMC station reception a red slash appears through the TMC Icon on the Map.

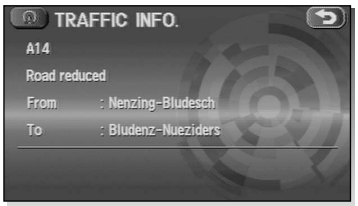


Traffic Events are shown on the map within the map scales 50m ~ 4km.



In case of approaching a traffic jam event : The distance to the event is less than 10 km the TMC Icon will change into a message box with the distance to the event and the event icon.

The direction of the event will be shown in the lower zoom levels on the map by an arrow in the colour which is related to the event.



By selecting the Traffic Event you can get information about the selected Event.

The colors which are related to the events are described in the following table:

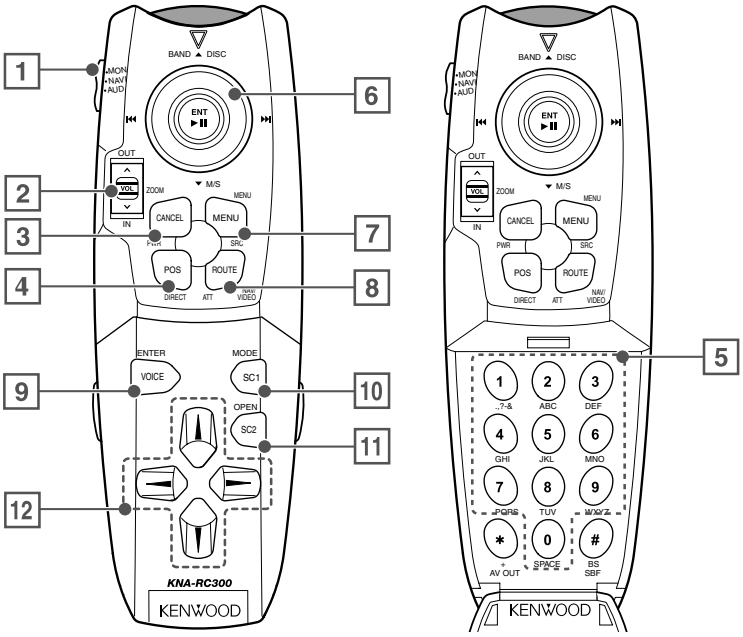
Category	DRGS On condition (Light background colour)		DRGS Off condition (Dark background colour)	
	Day	Night	Day	Night
Stationary Traffic (Red)	TMC	TMC	TMC	TMC
Traffic Jam (Orange)	TMC	TMC	TMC	TMC
Accidents (Pink)	TMC	TMC	TMC	TMC
Closed Road (Black)	TMC	TMC	TMC	TMC
Road Works (Pink)	TMC	TMC	TMC	TMC
Danger (Pink)				
Road Conditions (Yellow)	TMC	TMC	TMC	TMC
Weather (Yellow)				
Delays (Yellow)				
Parking (Gray)	TMC	TMC	TMC	TMC
Out of order (Gray)				
No reception (Gray)	TMC	TMC	TMC	TMC

- The colors are described in the following step. When the current position is in a traffic jam the TMC Icon colour will change into the colour which is related to the traffic event. The colors are as following.
- In case of a traffic jam occurance on your route the Dynamic Route Guidance option will show you the Reroute confirmation screen. If you do not want to have a reroute calculation you have to press No within 10 seconds. When you want to have a reroute calculation you have to press Yes, or wait 10 seconds and the system will accept the reroute calculation automatically.

Remote Control

Remote Control Functions

The KNA-RC300 Remote Control is used in the same way as the touch panel. (The KNA-RC300 Remote Control is an optional extra.)



No.	Name	Description of function
1	Mode	Mode switching (Navi, Monitor, Audio)
2	Enlarge/Reduce/ Right screen setting	Enlarged and reduced map indication (If the button is held in either position, the map can be smoothly enlarged or reduced.) Alternative, the button can be pressed down to perform setting on the map's right screen
3	Cancel	Return
4	Current Position	Current position
5	Number button	Character/Number entry
6	Joystick	Scrolling on the map, Moving of the cursor Alternatively, the button can be pressed down to implement your selection.
7	Menu	Menu display
8	Route	Route Option menu display
9	Voice	Plays Voice guidance
10	SC1	Shortcut 1 (see the following page.)
11	SC2	Shortcut 2 (see the following page.)
12	↑ ↓ → ←	Icon selection, Horizontal scrolling of characters

IMPORTANT

- Set Mode Setting switch to "NAVI" position while operationg this navigation system.
- Be careful to place the remote control at a position where it will not interfere with brake or steering wheel operation. If it should fall under the brake pedal or to some other similar location, a dangerous situation can develop where driving safety will be impaired.
- Kenwood monitors contain an integrated signal receiver for the remote control. Accordingly, there will be no need to install the remote control's signal receiver if using a Kenwood monitor; furthermore, it will not be possible to use the monitor's receiver if the remote control's signal receiver is connected.
- Press 3 (cancel) key to scroll the map when the joystick mode (selecting the button) is selected for such operation as changing the destination position.

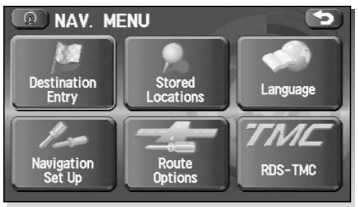
Shortcut Key Storage

The remote control features a pair of shortcut keys, and these can be assigned to any functions that you use on a regular basis.

1

Select Menu.

2



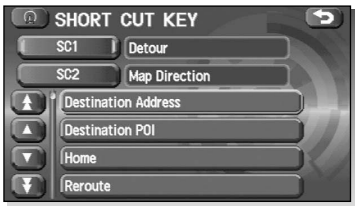
Select Navigation Set Up (Navigation Set Up).

3

Select Remote Control (Remote Control).

Select ▶ to display the second page.

4



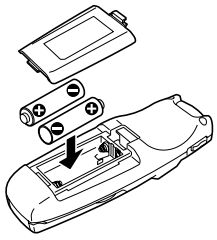
Select either SC1 or SC2.

5

Select the function to be stored from the list.

⏫ : Displays up to five previous suggestions.
🔼 : Displays the previous suggestions.
🔽 : Displays the next suggestions.
⏬ : Displays up to five of the next suggestions.

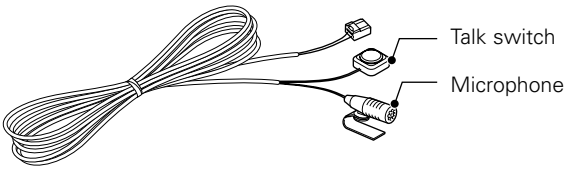
If the remote control should become unresponsive, replace with new batteries (i.e., 2 x R03).
Make sure that the batteries are inserted in the correct direction, and do not use old batteries together with new ones.



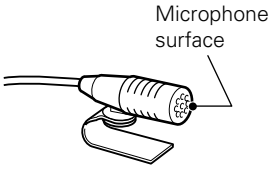
Voice Activate

Description

If the KNA-VC300 Microphone & Talk switch is connected, it will be possible to control the Navigation System through voice recognition. (The KNA-VC300 Microphone & Talk Switch is an optional extra.)



- Care should be given to the following points to ensure that the voice microphone's level of voice recognition is as high as possible while performing voice control.
- This microphone has directional characteristics, so you should speak towards the microphone surface.
- Use your normal speaking voice.
- Ensure that the car windows are shut and turn down the volume of the audio system.
- When connecting a KNA-VC300 Microphone & Talk switch (Optional extra) to the navigation system and using it for the first time, after turning the car's ACC switch on, turn it off then back on again. If this is not done, the navigation system will not recognize the KNA-VC300 and the KNA-VC300 cannot be used.



Voice Recognition

Select the language to be used for voice control.

1 **Select** Menu **.**

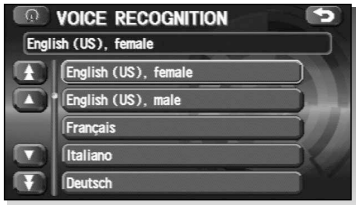
2

Select Language **(Language).**

3

Select Voice Recognition **.**

4



Select the language for voice control from the displayed list.

- : Displays up to five previous suggestions.
- : Displays the previous suggestions.
- : Displays the next suggestions.
- : Displays up to five of the next suggestions.

Basic Usage Pattern

Voice control can be carried out by simply clicking the talk switch and speaking a voice command (see the following section) into the microphone.

1 Click the talk switch.

The system will emit a short confirmation beep.

2 Speak the desired voice command.

Upon recognition, the system will emit a confirmation sound.
When an announcement for confirmation is made to the input voice command, press the talk switch again and speak "Yes" or "No".
When an announcement is made for the selected point to be set to the route point after inputting one of destination operation commands, press the talk switch again and speak "Enter destination", "Add to waypoint", "Renew destination", or "Cancel".

- If the same voice command is not read back, redo the sequence from the beginning.
- To cancel input of a voice command, hold down the talk switch until the system emits a beep (long or short), or select the display.
- Using the Help command will display the Help screen for voice recognition.

Voice Activate Command

The following voice commands can be used with voice control.

Shortcut Commands
[Show] Current (Position/Location)
[Show] Map
[Command] (Help/List)
Repeat [Voice] [Guidance]
Cancel
Map Operation Commands
Zoom In
Zoom Out
Zoom In Maximum
Zoom Out Maximum
Right Map Zoom In
Right Map Zoom Out
Right Map (Zoom In Maximum/ Minimum Scale)
Right Map (Zoom Out Maximum/ Maximum Scale)
[Change to/Show] North up [Mode]
[Change to/Show] Heading up [Mode]
[Change] Map Direction
Right Map [Show] North up [Mode]
Right Map [Show] Heading up [Mode]
Right Map [Change] Map Direction
[Show/Change to] Dual Map [Mode]
[Show/Change to] Single Map [Mode]
(Store/Mark) [This point]
[Change to] 3D map [Mode]
[Change to] 2D map [Mode]
POI Display Commands
Petrol Station/Petrol
Parking/Car Park/Multistorey Car Park/ Car Park
Town Centre/City centre
Town hall
Exhibition centre/Convention Centre
Community centre/Civic Centre
University/Higher Education/College
Hospital
Park/Park & Recreation/Recreation/ Amusement Park

Bowling centre/Bowling alley
Casino
Cinema
Golf course
Historical Monument
Ice Skating rink/Ice rink
Museum
Music club
Ski resort/Skiing
Sports centre/Sports Complex/Stadium
Theatre
Tourist attraction
Tourist information
Winery/Vineyard
Restaurant/I'm Hungry/Show Restaurant
Chinese Restaurant/Chinese Food
Fast Food/Fast Food Restaurant
French Restaurant/French Food
Italian Restaurant/Italian Food
Japanese Restaurant/Japanese Food
Other Restaurant/Other Food
Shopping centre/Shops
Airport
Bus station
Ferry port/Ferries
Hotel
Park & Ride/Rest Area
Car Rental
Motorway service
Railway station/Underground Station/ Train Station
POI Off
Destination Operation Commands
[Go] Home
Enter Destination
Add to waypoint
Renew Destination
[Go to/Previous] Starting Point
[Go to] Previous Destination
[Go to] Preset Destination [Number] One

[Go to] Preset Destination [Number] 2
[Go to] Preset Destination [Number] 3
[Go to] Preset Destination [Number] 4
[Go to] Preset Destination [Number] 5
Cancel
Guidance Commands
Louder
Softer
[Show] (Whole/Entire) Route [Map]
[Show] Next Way Point [Map]
Show First Way Point [Map]
Show Second Way Point [Map]
Show Third Way Point [Map]
Show Fourth Way Point [Map]
Show Fifth Way Point [Map]
Show Destination [Map]
(Delete/Cancel) Next Way Point
Yes
No
(Delete/Cancel) Destination
(Delete/Cancel) All Way Points and Destination
Voice guidance OFF
Voice guidance ON
Quick
Normal
Short
Detour
Detour Entire Route
[Change to] Arrow (Guide/Guidance)
[Change to] Turn List (Guide/Guidance)
[Change to] Motorway (Guide/Guidance)
[Change to] Crossroads (Guide/Guidance)
Display Commands
Display [set] day [mode]
Display [set] night [mode]
Display [set] auto [mode]

- Voice commands are sorted into the following five categories.
- Items in [square brackets] can be omitted. In addition, one of the items shown separated by a forward-slash must be selected.

General Information

■ Accuracy of the Vehicle's Position

Area in which GPS signals cannot be received

Because the radiowave signals from the GPS satellites travel primarily by line of sight, the navigation system might not be able to receive the signals in the areas described below.
(If the GPS mark does not appear on the map screen, it means that the GPS radiowave signals are not being properly received.)
(1) Inside a tunnel
(2) Inside a building
(3) Under a three-dimensional road such as a high-speed road
(4) On boulevards lined with trees
(5) Between buildings
(6) Under a cliff or in a cave

- If the GPS antenna or its surroundings are blocked by an obstacle (including cargo), it might not be possible for the system to receive the GPS radiowave signals.
- If multiple paths are created due to the reflection from the buildings, a large measurement error could occur, causing the vehicle's mark to deviate from its actual position.

Deviation of the vehicle's position mark

The vehicle's position mark could deviate from its actual position when the vehicle is being driven under the conditions listed below or due to conditions of the GPS satellites.
If the vehicle travels on a road whose actual shape differs from that in the map data, the vehicle's mark could deviate from the actual position. The correct position will eventually appear on the screen through the correction function. If the screen does not show the correct position for a long time, correct the current position or make an automatic correction.

(1) The vehicle's mark could appear on a parallel road.
(2) When the road splits into a narrow Y, the vehicle's mark could appear on the other fork of the Y.
(3) When the vehicle makes a right or left turn, the vehicle's mark could appear on one street ahead or behind.
(4) If the vehicle is transported by a means other than the vehicle's own power, such as on a ferry boat, the vehicle's mark will remain in the position it was before the transport until the system can calculate the position through the GPS.
(5) When the vehicle is driven on a steep incline, the vehicle's mark could deviate from its actual position.
(6) If there are continuous gradual curves in the same direction, the vehicle's mark could deviate from its actual position.
(7) If the vehicle is driven in a zigzag pattern, such as through frequent lane changes, the vehicle's mark could deviate from its actual position.
(8) If the vehicle is placed on a turntable , such as in a parking area, and turned with the ignition OFF, the orientation of the vehicle's mark could deviate from its actual orientation. The vehicle's mark could also deviate even after the vehicle has exited the parking area.
(9) The vehicle's mark could deviate from its actual position if the vehicle is driven on a snow-covered road or on a mountainous road with tire chains or snow tires.
  - After driving the vehicle under those conditions, perform the same operation given in the section on "After changing tires".
(10) The vehicle's mark could deviate from its actual position after the tires have been replaced.
  - After replacing the tires, refer to the section on "After changing tires".

■ How the Vehicle's Position is detected

Detecting the vehicle's position through the GPS

GPS stands for the "Global Positioning System"; it is a system for detecting an object's position through the use of the satellites of the Defense Department of the United States.
Radiowave signals from three or more satellites are received by the navigation system, which utilizes the principle of triangulation to detect the position in which the radiowave signals are received.
When the navigation unit is receiving the GPS radiowave signals, a "GPS" mark will appear on the map screen.

Detecting the vehicle's position through self-contained navigation

Self-contained navigation is a system that detects the vehicle's position by calculating the vehicle's driven distance and turning angle though the use of various types of sensors that are mounted on the vehicle.
Through the use of self-contained navigation, the vehicle's position can be detected even in an area where the GPS radiowaves signals cannot be received.

Making corrections to the detection of the vehicle's position through map matching

- In map matching, the position information resulting from the detection of the vehicle's position and the locus of the travel of the vehicle up to the present are constantly compared to the shapes of the roads on the map in order to correct the vehicle's position mark to the most appropriate road.
- If the vehicle is driven on a road whose actual shape differs from its map data, the vehicle's position mark on the map could deviate from its actual position.
  Occasionally, the correction of the vehicle's position mark to the actual road on the map can be observed particularly after the vehicle has turned at an intersection or has come out of a parking area.

■ Accuracy of the Route Guidance

The conditions listed below do not indicate a malfunction.

(1) The guidance might prompt the driver to drive straight even though the vehicle is being driven on a straight road.
(2) The directional guidance could display multiple place names.
(3) If the vehicle makes a turn at an intersection before the guided route, the wrong type of voice guidance could be output.
(4) The guidance might not be output while the vehicle is making a turn at an intersection.
(5) The system might not be able to search for the proper route.
(6) If there is no road to the destination or if there is only a narrow road, the route might only indicate up to an area that is short of the destination.
(7) The repeat search time could be long while the vehicle is being driven at high speeds.
(8) While the system is searching again for the route, the route indication might not appear in time for the next right or left turn.
(9) The route might not change even if a search is made again.
(10) The system might guide the driver to make a U-turn.
(11) The system might guide the driver on a road that cannot actually be travelled (such as on a road in which entry is prohibited).
(12) The system might not output guidance even if the vehicle is driven in reverse on the guided route.
(13) The system might not use a local ferry boat even if it the ferry priority is selected.
(14) If the intersection you're being guided to is near the end of the route search, the system might not be able to provide guidance.
(15) The route might not go on a toll road even the toll-road priority is selected.
  Similarly, a route that uses a toll road could appear on the screen even if the toll-road priority is not selected.
  (The driver may or may not be able to select the "toll-road priority" if both toll and free roads are available.)

Troubleshooting

Confirm whether any problem is due to a minor operational error or a malfunction. Check the table below before contacting your local dealer for any repair service.

The power does not come on.	
The fuse might be blown.	Check the fuse. Replace it if it is blown.
The map does not scroll even when the vehicle is moving.	
The screen shown might not be the Current Position screen.	See page 7 of this manual to display the Current Position screen.
The vehicle marker does not appear.	
The screen shown might not be the Current Position screen.	See page 7 of this manual to display the Current Position screen.
The GPS marker is not displayed.	
The GPS antenna or your vehicle might be in a position where GPS signals cannot be received.	Try moving the GPS antenna or your vehicle to a position where there are no obstacles around.
There is no voice guidance.	
• Route guidance might be suspended. • The guidance volume might be turned down low.	• The route guidance is off, see Route Options (page 32). • See <Volume Adjustment> (page 33).
Small spots or bright flashes appear in the screen displayed.	
This is probably due to the nature of the LCD display.	There is nothing wrong with the display and no need for concern.
The map disc cannot be ejected.	
The disc might be incompatible or might have been inserted incorrectly.	Restart the engine and see page 5 of this manual.

Specifications

Specifications subject to change without notice.

Navigation Section

Antenna.....Micro-strip patched antenna
Receiver channel ..... Digital 8-channels parallel
Receiving frequency .....1575.42 MHz (C/A code)
Receiving sensitivity .....Less than -130 dBm
Positioning method .....Hybrid (GPS + Wheel Pulse + Gyro Sensor)

General

Operating voltage .....14.4 V DC (11 to 16 V)
Current consumption .....Less than 2.5 A
Operational temperature range .....–10°C to +55°C
Storage temperature range .....–30°C to +85°C
Video output level (75 Ω) .....1 Vp-p (Composite)/ 0.7 Vp-p (Analog RGB)
Audio output level (10 kΩ).....1.2 Vrms
Size (Navigation unit).....164.5(W) x 50(H) x 176.0(D) mm
(Antenna unit).....34(W) x 13.2(H) x 38(D) mm
Mass (Navigation unit) .....1174 g
(Antenna unit) .....25 g